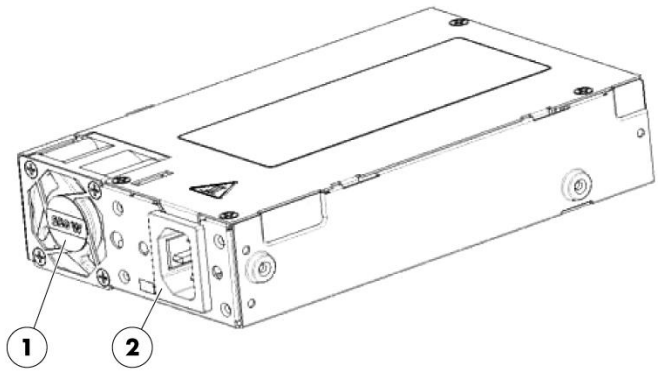
Overview

HP Entry-Level Power Supplies

Looking for high-efficiency power solutions at an entry-level price for your ProLiant Gen9 Essential Server? HP Entry-Level Power Supplies offer an optimized set of features with options for both redundant and non-redundant power configurations.

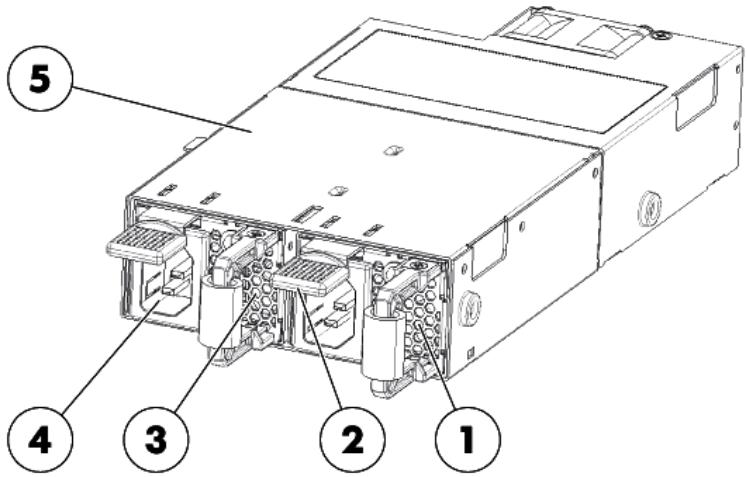
The HP 550W FIO Power Supply offers Silver-certified 80 Plus power efficiency (up to 89%) with an optimized set of features for non-redundant power configurations.

The HP 800W Gold (Redundant)/900W (Non-Redundant) AC Power Input Module with Power Backplane can be configured to support power redundancy in ProLiant servers that offer only a single power supply bay, providing additional protection against power loss. With an 80 Plus Gold power efficiency rating (up to 92%), this power option helps to reduce operating expenses while protecting against trapped power capacity in the data center. Hot-plug AC power input modules allow for better serviceability with fast and easy deployment and replacement.



HP 550W FIO Power Supply

1. Power Supply Identification Label
2. C-14 Input Connector



HP 800W Gold (Redundant)/900W (Non-Redundant) AC Power Input Module with Backplane

1. AC Power Input Module #1
2. Hot-Plug Quick Release Lever
3. AC Power Input Module #2
4. C-14 Power Input Connector
5. Power Supply Backplane

Overview

Models

HP Entry-Level Power Supplies	**HP ProLiant Gen9 Essential Server Power Supplies – Non-Redundant**	
	NOTE: Supports Silver-level efficiency (89%) with a standard C14 inlet connector. No support for HP Power Discovery Services. Only compatible with select HP ProLiant Gen9 Essential servers.	
	HP 550W FIO Power Supply Kit	730941-B21
	NOTE: This is a Factory Installed Option (FIO) only.	
	HP ProLiant Gen9 Essential Server Power Supplies – Redundant	
	NOTE: Supports Gold-level efficiency (92%) with a standard C14 inlet connector. No support for HP Power Discovery Services. Only compatible with select HP ProLiant Gen9 Essential servers.	
	HP Server Redundant Power Supply Backplane Kit	745813-B21
	HP 800W Gold (Redundant)/900W (Non-Redundant) AC Power Input Module	744689-B21
	NOTE: Each Redundant Power Supply Backplane can support up to two (2) power input modules. Non-redundant configurations with a single power input module installed can provide up to 900W (200 – 240VAC) and up to 550W (100 – 127VAC) of power. Redundant configurations with two power input modules installed can provide up to 800W (200 – 240VAC) and up to 550W (100 – 127VAC) of power.	

Standard Features

HP 800W/900W Gold Power Supply	High Efficiency	Gold certified 80 Plus power efficiency rating, up to 92% efficiency, reduces operating expenses and trapped power in the data center.
	Power Redundancy	Can be configured to support power redundancy in ProLiant servers that offer only a single power supply bay, providing additional protection against power loss.
	Serviceability	Hot-plug AC power input modules that allow for fast and easy deployment and replacement.
	Compatibility	Available as an upgrade option for most ProLiant Essential servers, allowing spares to be shared across a wider range servers.
HP 550W FIO Power Supply	High Efficiency	Silver certified 80 Plus power efficiency rating, up to 89% efficiency, reduces operating expenses and trapped power in the data center.
	Compatibility	Standard power supply for most ProLiant Essential servers, allowing spares to be shared across a wider range servers

80Plus Certification

The 80PLUS test protocol was developed jointly by Ecos Plug Load Solutions and the Electric Power Research Institute (EPRI) in 2003, with the program being formally launched in 2004.

The 80 PLUS performance specification requires power supplies in servers to be 80% or greater energy efficient at 20%, 50% and 100% of rated load with a true power factor of 0.9 or greater. This makes an 80 PLUS certified power supply substantially more efficient than typical power supplies found in many other electrical devices.

Who benefits from the 80PLUS power supply program?

- Commercial/Residential Consumers - empowered with information regarding energy efficient IT options that help them cut energy costs and reduce their environmental impact
- Utility/Power Providers - participation in a program that focuses on reducing power demands on overburdened grids as well as reducing power waste and its associated environmental impact

What are the efficiency requirements for each certification level?

80 PLUS Certification	**230V Internal**		
% of Rated Load	**20%**	**50%**	**100%**
80 PLUS Bronze	81%	85%	81%
80 PLUS Silver	85%	89%	85%
80 PLUS Gold	88%	92%	88%

What level of certification do HP Entry-Level Power Supplies meet?

The HP 550W FIO Power Supply meets 80PLUS Silver certification requirements. The HP 800W/900W Gold Power Supply meets 80PLUS Gold certification requirements. To review 80Plus certification reports for all HP Power Supply options, please refer to the 80Plus website at: www.80plus.com.

Standard Features

Compatibility

To check for power supply compatibility, please review the appropriate HP Server Quickspec at www.hp.com/go/qs.

Service and Support

Service and Support	**HP Entry-level Power Supplies are supported as a part of the overall ProLiant infrastructure.** **HP Technology Services for Industry Standard Servers** HP Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. Connect to HP to help prevent problems and solve issues faster. Our support technology lets you tap into the knowledge of millions of devices and thousands of experts to stay informed and in control, anywhere, any time. **Protect your business beyond warranty with HP Care Pack Services** HP Care Pack Services enable you to order the right service level, length of coverage and response time as you purchase your new server, giving you full entitlement for the term you select.
Insight Remote Support	Provides 24 X 7 remote monitoring, proactive notifications, and problem resolution. Learn more http://www.hp.com/go/insightremotesupport
HP Support Center	Personalized online support portal with access to information, tools and experts to support HP business products. Submit support cases online, chat with HP experts, access support resources or collaborate with peers. Learn more http://www.hp.com/go/hpsc HP's Support Center Mobile App* allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalized IT support anywhere, anytime. HP Insight Remote Support and HP Support Center are available at no additional cost with a HP warranty, HP Care Pack or HP contractual support agreement. *HP' Support Center Mobile App is subject to local availability
Warranty / Service Coverage	For ProLiant servers and storage systems, this service covers HP-branded hardware options qualified for the server, purchased at the same time or afterward, internal to the enclosure, as well as external monitors up to 22" and tower UPS products; these items will be covered at the same service level and for the same coverage period as the server unless the maximum supported lifetime and/or the maximum usage limitation has been exceeded. Coverage of the UPS battery is not included; standard warranty terms and conditions apply. The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by HP due to malfunction. It does not apply to any exchange of Disk or SSD/Flash Drives that have not failed. SSD/Flash Drives that are specified by HP as consumable parts and/or that have exceeded maximum supported lifetime and/or the maximum usage limit as set forth in the manufacturer's operating manual or the technical data sheet are not eligible for the defective media retention service feature option.
For more information	To learn more on services for HP ESSN Options, please contact your HP sales representative or HP Authorized Channel Partner. Or visit: http://www.hp.com/services/proliant or www.hp.com/services/bladesystem

Related Options

Related Options

VAC C13 to C14 Power Cables	HP C13 - C14 WW 250V 10A Gray 0.7m Jumper Cord	A0K03A
	HP C13 - C14 WW 250V 10A Gray 1.37m Jumper Cord	A0K04A
	HP C13 - C14 WW 250V 10A Gray 3.0m Jumper Cord	A0K06A
	HP C13 - C14 WW 250V 10Amp 0.7m Jumper Cord	142257-B28
	HP C13 - C14 WW 250V 10Amp 1.4m Jumper Cord	142257-006
	HP C13 - C14 WW 250V 10Amp 1.4m 15 pc Jumper Cord	142257-007
	HP C13 - C14 WW 250V 10Amp 2.0m Jumper Cord	A0K02A
	HP C13 - C14 WW 250V 10Amp 2.5m Jumper Cord	142257-002
	HP C13 - C14 WW 250V 10Amp 3.0m Jumper Cord	142257-003

Power Specifications

HP 550W FIO Power Supply (730941-B21)	HP's Generic Part Number							748949-001
	HP's Spares Part Number							766879-001
Input Voltage Range (V rms)	100-240							
Frequency Range (Nominal) (Hz)	50-60							
Nominal Input Voltage (Vrms)	100	120	127	200	208	220	230	240
Maximum Rated Output Wattage Rating	550	550	550	550	550	550	550	550
Nominal Input Current (A rms)	6.5	5.4	5.1	3.2	3.0	2.9	2.7	2.6
Maximum Rated Input Wattage Rating (Watts)	645	638	636	624	623	623	622	621
Maximum Rated VA (Volt-Amp)	652	644	642	630	630	629	628	627
Efficiency (%)	85.2	86.3	86.5	88.1	88.2	88.4	88.5	88.6
Power Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Leakage Current (mA)	0.32	0.38	0.40	0.63	0.65	0.69	0.72	0.75
Maximum Inrush Current (A peak)	30							
Maximum Inrush Current duration (ms)	10							
Maximum British Thermal Unit Rating (BTU-Hr)	2201	2176	2169	2130	2127	2124	2121	2119

HP 800W Gold (Redundant) AC Power Input Module (744689-B21) with Power Backplane (745813-B21)*	HP's Generic Part Number (Backplane)							743908-001
	HP's Generic Part Number (Power Input Mod)							743907-001
	HP's Spares Part Number (Backplane)							754376-001
	HP's Spares Part Number (Power Input Mod)							744689-B21
Input Voltage Range (V rms)	100-240							
Frequency Range (Nominal) (Hz)	50-60							
Nominal Input Voltage (Vrms)	100	120	127	200	208	220	230	240
Maximum Rated Output Wattage Rating	550	550	550	800	800	800	800	800
Nominal Input Current (A rms)	6.2	5.1	4.8	4.4	4.3	4.0	3.8	3.7
Maximum Rated Input Wattage Rating (Watts)	616	606	604	880	880	878	875	873
Maximum Rated VA (Volt-Amp)	622	612	610	888	888	887	884	881
Efficiency (%)	89.4	90.8	91.1	90.9	90.9	91.1	91.4	91.7
Power Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Leakage Current (mA)	0.33	0.40	0.42	0.67	0.69	0.73	0.77	0.80
Maximum Inrush Current (A peak)	30							
Maximum Inrush Current duration (ms)	10							
Maximum British Thermal Unit Rating (BTU-Hr)	2099	2065	2058	2999	2999	2994	2984	2975

***NOTE:** The above power specifications are based on a configuration that includes a single power backplane with two AC power input modules installed.

Power Specifications

HP 900W Gold (Non-Redundant) AC Power Input Module (744689-B21) with Power Backplane (745813-B21)*	HP's Generic Part Number (Backplane)							743908-001
	HP's Generic Part Number (Power Input Mod)							743907-001
	HP's Spares Part Number (Backplane)							754376-001
	HP's Spares Part Number (Power Input Mod)							744689-B21
Input Voltage Range (V rms)	100-240							
Frequency Range (Nominal) (Hz)	50-60							
Nominal Input Voltage (Vrms)	100	120	127	200	208	220	230	240
Maximum Rated Output Wattage Rating	550	550	550	900	900	900	900	900
Nominal Input Current (A rms)	6.2	5.1	4.8	5.0	4.8	4.5	4.3	4.1
Maximum Rated Input Wattage Rating (Watts)	616	606	604	993	993	991	988	985
Maximum Rated VA (Volt-Amp)	622	612	610	1003	1003	1001	998	995
Efficiency (%)	89.4	90.8	91.1	90.6	90.6	90.8	91.1	91.4
Power Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Leakage Current (mA)	0.33	0.40	0.42	0.67	0.69	0.73	0.77	0.80
Maximum Inrush Current (A peak)	30							
Maximum Inrush Current duration (ms)	10							
Maximum British Thermal Unit Rating (BTU-Hr)	2099	2065	2058	3386	3386	3379	3368	3358

***NOTE:** The above power specifications are based on a configuration that includes a single power backplane with one AC power input modules installed.

Technical Specifications

HP 550W FIO Power Supply:

Operating Temperature	41° to 122°F (5° to 50°C)
Operating Relative Humidity (%)	5% to 95%, non-condensing
Operating Elevation	The maximum ambient temperature of the power supply shall have an altitude derating, from sea level, of 1.0°C per every 304.8 m (1.8°F per every 1000ft) above sea level to a maximum of 3048m (10,000ft)
Storage Temperature	-40° to 185°F (-40 to 85°C)
Storage Relative Humidity (%)	5% to 95%, non-condensing
Storage Elevation	0 to 50,000ft (0 to 15,240m)
Input Voltage	
Low Line	Rated: 100V - 127V; Min 90V to Max 132V
High Line	Rated: 200 - 240V; Min 180V to Max 264V
Input Frequency	Rated: 50 to 60Hz; Min 47Hz to Max 63Hz
Conformance Standards	CE Mark, UL, CUL, IEC, EN, KC, BSMI, CCC, TUV, CISPR Class A
Mechanical Dimensions (WxHxD)	4.23 x 1.57 x 6.9 in (10.74 x 3.99 x 17.53 cm)
Unit Weight	2.38 lbs (1.08 kg)
Kit Contents	Factory integrated 550W FIO power supply

HP 800W Gold (Redundant)/900W (Non-Redundant) AC Power Input Module with Backplane:

Operating Temperature	41° to 122°F (5° to 50°C)
Operating Relative Humidity (%)	5% to 95%, non-condensing
Operating Elevation	5000ft (1524m); Derate operating temperature 1.0°C every 1000ft (304.8m) to maximum of 10,000ft (3048m)
Storage Temperature	-40° to 185°F (-40 to 85°C)
Storage Relative Humidity (%)	5% to 95%, non-condensing
Storage Elevation	0 to 50,000ft (0 to 15,240m)
Input Voltage	
Low Line	Rated: 100V - 127V; Min 90V to Max 132V
High Line	Rated: 200 - 240V; Min 180V to Max 264V
Input Frequency	Rated: 50 to 60Hz; Min 47Hz to Max 63Hz
Conformance Standards	CE Mark, UL, cUL, IEC, EN, KCC, BSMI, CCC, TUV, C-tick, CISPR Class A
Mechanical Dimensions (WxHxD)	
Backplane	8.28 x 4.23 x 1.54 in (21.02 x 10.74 x 3.9 cm)
Power Input Module	4.22 x 2.04 x 1.46 in (10.72 x 5.18 x 3.7 cm)
Unit Weight	
Backplane	0.57 lbs (0.26 kg)
Power Input Module	0.88 lbs (0.4 kg)
Kit Contents	
Power Backplane (745813-B21)	(1) Power backplane, installation/safety guide, documentation
AC Power Input Module (744689-B21)	(1) AC power input module, (1) IEC C13 – C14 jumper cable, installation/safety guide, documentation

Environment-friendly Products and Approach

End-of-life Management and Recycling

Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: http://www.hp.com/go/green. To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest HP sales

office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/green. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

Summary of Changes

Date	Version History	Action	Description of Change:
01-Dec-2014	From Version 1 to 2	Changed	Changes made throughout the entire QuickSpecs.

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